

### **REMARKS**

Claims 1-31 are pending in this application. Claims 1, 14, 27, 29, and 31 are independent claims.

### **Double Patenting**

Claims of the present application have been provisionally rejected under the doctrine of obviousness-type double patenting over claims 1, 4, 6, 7, 12-14, 20, and 26 of Application No. 10/631,813. Applicant requests that the Examiner clarify which specific claims of the present application are being rejected.

Applicant defers the decision to file a terminal disclaimer until no other rejections remain and the application is otherwise in conduction for allowance.

### **§ 102(e) Rejection – Azuma**

Claims 1, 2, 4, 5, 7, 14-20, 22, 27-31 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent no. 6,704,608 (“Azuma”). This rejection is respectfully traversed.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 68, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Applicant respectfully submits that Azuma fails to teach each of the elements in claim 1 as is required to support a rejection under § 102. Claim 1 recites “an advance authentication processing section for decrypting the encrypted and received random number **based on a secret key**; encrypting the decrypted random number **based on the secret key**; and an input/output section that outputs the encrypted random number encrypted **based on the secret key**.” (Emphasis added)

With respect to claim 1, the Examiner directs the Applicant's attention to the following text from Azuma: "The second terminal apparatus decrypts the numeral WM, using a **secret key**, encrypts it using a **public key** to obtain the numeral WN, and sends the numeral WN to the IC card" (Azuma col. 20, ln. 1-4). Azuma teaches decrypting a numeral with a public key and encrypting it with a private key. However, claim 1 claims both a "section for decrypting the encrypted and received random number **based on a secret key**", and encrypting the decrypted random number **based on the secret key**." Azuma does not teach encrypting and decrypting with the same key as is required by claim 1.

Additionally, Azuma does not teach an output section outputting the random number encrypted based on the **secret key**. On the contrary, Azuma teaches encrypting the numeral WM with a **public key** to obtain the numeral WN (Azuma col. 20, ln. 1-4).

Accordingly, Azuma fails to teach each of the elements in claim 1 as is required to support a rejection under 35 U.S.C. § 102.

The Applicants respectfully submit that Azuma fails to teach each of the elements in claim 14. Claim 14 recites "an advance authentication processing section for encrypting the generated random number **based on a prescribed key**;" and "decrypting a random number... **based on the prescribed key**;".

Azuma recites the following:

The IC card generates a random number M, encrypts it using the public key Mb, and sends an encrypted numeral WM to the second terminal apparatus. The second terminal apparatus decrypts the numeral WM using a secret key, encrypts it using a public key to obtain a numeral WN, and sends the numeral WN to the IC card. The IC card receives from the second terminal apparatus the numeral WN, obtains a numeral N by decrypting the numeral WN, and judges whether the numeral n matches the numeral M. (Azuma col. 9, ln. 66- col. 10, ln. 7).

Azuma discloses an IC card that both encrypts and decrypts a random number but, Azuma is silent as to whether or not the IC card both encrypts and decrypts the random number with the same key. Accordingly, Azuma fails to teach each of the elements in claim 14 as is required to support a rejection under 35 U.S.C. § 102.

Claim 27 contains limitations similar to those of claims 1 and 14. For the reasons cited above, Azuma does not teach each of the elements in either of claims 1 and 14. Accordingly, at least by virtue of its similarity to claims 1 and 14, Azuma fails to teach each of the elements in claim 27 as is required to support a rejection under 35 U.S.C. § 102.

Accordingly, claims 2, 4, 5 and 7 depend from claim 1; claims 15, 18, 19 and 20 depend from claim 14; and 28 depends from claim 27; and claim 30 depends from claim 29. Accordingly, at least by virtue of their dependency from claims 1, 14, 27 and 29, Azuma fails to teach each of the elements in any of claims 2, 4, 5, 7, 15, 18, 19, 20, 28 and 30 as is required to support a rejection under § 102.

Therefore, Applicants respectfully request that this rejection of claims 1, 2, 4, 5, 7, 14-20, 22 and 27-31 under 35 U.S.C. § 102 be withdrawn.

**Rejection Under U.S.C. § 103(a) – Azuma, Brinkmeyer**

Claims 6, 8, 9, 23 and 24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,704,608 (“Azuma”). This rejection is respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The deficiencies of Azuma have been discussed above and are applicable here as well because claim 6, 8, and 9 depend from claim 1 and claim 23 and 24 depend from claim 14. For the reasons stated above, Azuma fails to teach or suggest each of the limitations in either of claims 1 and 14. Accordingly, at least in view of their dependency from claims 1 and 14, Azuma fails to teach or suggest each of the limitations in either of claims 6, 8, 9, 23, and 24. Consequently, the Examiner has not established a *prima facie* case of obviousness required to support a rejection under § 103.

Therefore, Applicants respectfully request that this rejection of claims 6, 8, 9, 23, and 24 under 35 U.S.C. § 103 be withdrawn.

**Rejection Under 35 U.S.C. § 103(a) – Azuma in view of Stefik**

Claims 10-13, 25, and 26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Azuma in view of U.S. Patent No. 5,629,980 (“Stefik”). This rejection is respectfully traversed.

The deficiencies of Azuma have been discussed above and are applicable here as well because claims 10-13 depend from claim 1 and claims 25 and 26 depend from claim 14. For the reasons stated above, Azuma fails to teach each of the limitations in either of claims 1 and 14. Stefik fails to remedy these deficiencies. Accordingly, at least in view of their dependency from claims 1 and 14, neither Azuma nor Stefik alone or in combination teach or suggest each of the limitations in either of claims 10-13, 25, and 26. Consequently, the Examiner has not established a *prima facie* case of obviousness as is required to support a rejection under § 103.

Therefore, Applicants respectfully request that this rejection of claims 10-13, 25 and 26 under 35 U.S.C. § 103 be withdrawn.

**CONCLUSION**

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact **Robert Downs** Reg. No. 48,222 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Application No. 10/673,847  
Amendment dated April 28, 2008  
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

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